

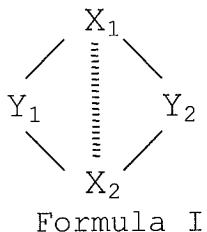
Attorney Docket No.: **MGU-0025**  
Inventors: **Damha et al.**  
Serial No.: **10/748,475**  
Filing Date: **December 30, 2003**  
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This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-10 (canceled).

Claim 11 (new): A composition for inhibiting the RNase H activity of a retroid virus reverse transcriptase comprising an inhibitory agent of Formula I:



wherein,

X<sub>1</sub> and X<sub>2</sub> are antiparallel complementary oligonucleotide strands that associate to form a duplex;

X<sub>1</sub> is 2 to 24 nucleotides in length;

X<sub>2</sub> is 2 to 24 nucleotides in length;

Y<sub>1</sub> is 2 to 8 nucleotides in length;

Y<sub>2</sub> is 2 to 8 nucleotides in length;

at least one of Y<sub>1</sub> or Y<sub>2</sub> is 4 to 8 nucleotides in length;

Y<sub>1</sub> and Y<sub>2</sub> each independently contain a ribonucleic acid; 2',5'-linked ribonucleic acid; or combination thereof wherein a Y<sub>1</sub> or Y<sub>2</sub> of at least 4 nucleotides comprises the sequence 5'-UUYG-3'/2' (SEQ ID NO:1); and

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wherein the inhibitory agent binds to the RNase H domain of retroid virus reverse transcriptase thereby inhibiting the RNase H activity thereof.

Claim 12 (new): A composition of claim 11, wherein X<sub>1</sub> and X<sub>2</sub> of Formula I are comprised of 3',5'-linked ribonucleic acid; deoxyribonucleic acid; 2',5'-linked ribonucleic acid; arabinonucleic acid; 2'-fluoro-arabinonucleic acid; locked nucleic acid; peptide nucleic acids; or a combination thereof.

Claim 13 (new): A composition of claim 11, wherein X<sub>1</sub> and X<sub>2</sub> of Formula I are comprised of 3',5'-linked ribonucleic acid.

Claim 14 (new): A composition of claim 11, wherein X<sub>1</sub> and X<sub>2</sub> of Formula I are comprised of deoxyribonucleic acid.

Claim 15 (new): A composition of claim 11, wherein X<sub>1</sub> and X<sub>2</sub> of Formula I are comprised of a combination of 3',5'-linked ribonucleic acid and deoxyribonucleic acid.

Claim 16 (new): A composition of claim 11, wherein X<sub>1</sub> and X<sub>2</sub> of Formula I are 3',5'-linked ribonucleic acid and are 4 to 10 nucleotides in length.

Claim 17 (new): A composition of claim 11, wherein Y<sub>1</sub> and Y<sub>2</sub> are a 3',5'-linked tetraribonucleotide of the sequence 5'-UUYG-3' (SEQ ID NO:1).

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Claim 18 (new): A composition of claim 11, wherein said composition is a cyclic structure.